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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,855	03/22/2006	Munekatsu Shimada	072280-0013	9266
20277 7590 08/29/2008 MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096				
EXAMINER				
KIM, JOHN K				
ART UNIT		PAPER NUMBER		
2834				
MAIL DATE		DELIVERY MODE		
08/29/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/572,855

Applicant(s)

SHIMADA ET AL.

Examiner

JOHN K. KIM

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
4a) Of the above claim(s) 6-35 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-5 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 3/22/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-85/86)
Paper No(s)/Mail Date 3/22/2006, 4/13/2007
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Inventor's Patent Application
6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of claims 1-5 with traverse of restriction requirement in the reply filed on 7/09/2008 is acknowledged. The traversal is on the ground(s) that the claims as written are generic to all of the Groups of inventions recited in the Action. This is not found persuasive because of reasons listed below. The requirement is still deemed proper and is therefore made FINAL.

Group I is an apparatus of rotor. More particularly, an interior mount permanent magnet rotor for electric motor. Typical view is as show in Fig. 1.

Group III is an apparatus of a laser peening. Typical view is as shown in Fig. 4.

These two groups of apparatus are totally independent. Fig. 4 describes the independency very clearly. Part number 600 is the laser peening apparatus, and specification [0061] describes that "A laser peening apparatus 600 has a main unit 610 (laser irradiating device) for irradiating the laser and a tank 660 in which a work piece 200 is located." Further, specification [0062] describes that "The main unit 610 has a laser oscillator 620, an output adjusting device 630, a shutter 640, and a lens 650. The tank 660 containing water 680 as the liquid through which the laser is transmitted, is equipped with a window 670 located on the side and a two-axis moving table (not shown)."

Thus, the laser peening apparatus does not need a rotor for functioning. In illustration, rotor is a target or an example of application, and claim 26 recites such that "A laser

peening apparatus comprising: a laser irradiating device for irradiating a rotor made of low iron loss magnetic steel with a laser through a liquid; ...”, where irradiating a rotor is defined as an intended use. Meanwhile, claim 1 recites “A rotor improved by means of applying a laser peening ...”, which is a product-by-process claim language. Method Groups (Group II and Group IV) for each subject matter are independent accordingly. The methods recited are not applicable just for those apparatus. They can be applied for many other modifications of apparatus by different subject, material or steps.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimada et al (US 2003/0201685).

As for claim 1, Shimada teaches (in Figs. 1-2) a rotor (1) using an electrical steel sheet with low iron loss (see abstract), the rotor comprising: a bridge (16) side (12) on an inner circumference of a magnet insertion window (2, 3) of said rotor, a strength of said bridge side (12) improved [0068, 0196] by means of applying a laser peening of irradiating said bridge side with a laser through a liquid. (neglected as being ‘product-by-process’)

As for claim 2, Shimada teach the claimed invention as applied to claim 1 above. Shimada further teaches (in Figs. 1-2) said bridge side (12) irradiated with the laser is a region where a high stress occurs due to centrifugal force acting on a magnet when said rotor rotates. [0102]

As for claim 3, Shimada teach the claimed invention as applied to claim 1 above. Shimada further teaches (in Fig. 1) a magnet of said rotor for each pole is divided into a plurality of pieces. [0120, 0136]

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al (US 2003/0201685) in view of Fukui et al (US 2002/0114824).

As for claim 4, Shimada teaches the claimed invention as applied to claim 1 above.

Shimada, however, failed to teach or suggest said bridge side has a step. In the same field of endeavor, Fukui teaches (in Fig. 5) some portions of core piece are reduced by pressing. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Fukui with that of Shimada for developing toward the space sides. [0007] Fukui discloses the claimed invention except for the step is at bridge side. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the location of some portion for the step to be at bridge side, since it has been held that rearranging parts of an invention involved only routine skill in the art. *In re Japikse*, 86 USPQ 70 (CCPA 1950).

As for claim 5, Shimada and Fukui teach the claimed invention as applied to claim 4 above. Fukui further teaches (in Fig. 5) the step (10, 11) are located on one side or each side as teaching some portions of core piece are reduced by pressing and therefore, number of the portion is to be determined as a design option.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN K. KIM whose telephone number is (571)270-5072. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-270-6072.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tran Nguyen/
Primary Examiner, Art Unit 2834
JK